

WHAT IS CLAIMED IS:

- Sub A1
1. An isocyanate-reactive component useful for the production of a rigid closed cell polyurethane foam by a RIM process comprising:
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- a) from 0.5 to 30% by weight, based on total weight of isocyanate-reactive component, of a bio-based polyol,
- b) from 5 to 80% by weight, based on total weight of isocyanate-reactive component, of an isocyanate-reactive material having a functionality of at least 1 and a number average molecular weight of from 400 to 10,000,
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- c) a chain extender or a crosslinking agent,
- d) a blowing agent, and
- e) a catalyst.
2. The isocyanate-reactive component of Claim 1 in which up to 25% by weight of the total isocyanate reactive-component is the bio-based polyol.
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3. The isocyanate-reactive component of Claim 1 in which up to 20% by weight of the total isocyanate-reactive component is the bio-based polyol.
4. The isocyanate-reactive component of Claim 1 in which at least 0.5% by weight of the total isocyanate-reactive component is the bio-based polyol.
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5. The isocyanate-reactive component of Claim 1 in which at least 5% by weight of the total isocyanate-reactive component is the bio-based polyol.
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6. The isocyanate-reactive component of Claim 1 in which the bio-based polyol is a blown soybean oil.
7. An isocyanate-reactive component useful for the production of a rigid closed cell polyurethane foam by a RIM process comprising:
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- a) at least 10% by weight, based on total weight of isocyanate reactive component, of a soybean oil based polyol,
- b) from 5 to 80% by weight, based on total weight of isocyanate-reactive component of a polyether polyol having

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a functionality of from 2 to 8 and a number average molecular weight of from 400 to 10,000,

- c) from 1 to 75% by weight, based on total weight of isocyanate-reactive component of a chain extender,
- d) water, and
- e) a catalyst.

8. A RIM process for the production of a rigid, closed-cell polyurethane foam comprising

- a) intimately mixing the isocyanate-reactive component of Claim 1 with an organic polyisocyanate in an amount such that the ratio of NCO to OH groups is from 0.8:1 to 1.3:1 and
- b) introducing the mixture from a) into a mold.

9. A RIM process for the production of a rigid, closed-cell polyurethane foam comprising:

- a) intimately mixing the isocyanate-reactive component of Claim 2 with an organic polyisocyanate in an amount such that the ratio of NCO to OH groups is from 0.8:1 to 1.3:1 and
- b) introducing the mixture from a) into a mold.

10. A RIM process for the production of a rigid, closed-cell polyurethane foam comprising:

- a) intimately mixing the isocyanate-reactive component of Claim 3 with an organic polyisocyanate in an amount such that the ratio of NCO to OH groups is from 0.8:1 to 1.3:1 and
- b) introducing the mixture from a) into a mold.

11. A RIM process for the production of a rigid, closed-cell polyurethane foam comprising:

- a) intimately mixing the isocyanate-reactive component of Claim 6 with an organic polyisocyanate in an amount such that the ratio of NCO to OH groups is from 0.8:1 to 1.3:1 and
- b) introducing the mixture from a) into a mold.

12. A RIM process for the production of a rigid, closed-cell polyurethane foam comprising:

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- a) intimately mixing the isocyanate-reactive component of Claim 7 with an organic polyisocyanate in an amount such that the ratio of NCO to OH groups is from 0.8:1 to 1.3:1 and
- b) introducing the mixture from a) into a mold.
- 5 13. A rigid, closed-cell polyurethane foam produced by the process of Claim 8.
14. A rigid, closed-cell polyurethane foam produced by the process of Claim 9.
15. A rigid, closed-cell polyurethane foam produced by the
- 10 process of Claim 10.
16. A rigid, closed-cell polyurethane foam produced by the process of Claim 11.
17. A rigid, closed-cell polyurethane foam produced by the process of Claim 12.

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